



13 April 2017

Mr Andrew Broad MP
Chair, Standing Committee on the Environment and Energy
PO Box 6021
Parliament House
CANBERRA ACT 2600

via: moderngrid@aph.gov.au

Inquiry Into Modernising Australia's Electricity Grid – Response To Question On Notice

Dear Mr Broad,

Thank you for the opportunity to present to the Standing Committee on the Environment and Energy on 30 March 2017 during the public hearing of the Inquiry into Modernising Australia's Electricity Grid.

During the public hearing, I undertook to provide the Committee with detailed advice regarding the capacity of interconnectors in the existing National Electricity Market (NEM) and to provide the Committee with some recent research undertaken as part of the ENA-CSIRO Electricity Network Transformation Roadmap on consumer generation, cross subsidies and cost-reflective pricing.

Please find attached information on NEM interconnectors sourced from the Australian Energy Market Operator's Interconnector Capabilities for the National Electricity Market publication. This has been updated to reflect the completion and ongoing commissioning of the recent upgrade of the Heywood Interconnector between Victoria and South Australia ([Attachment A](#)).

Please also find attached recent summary and detailed reports covering the issues of unlocking future consumer generation, and pathways to reducing cross-subsidies through network tariff reforms :

- *Unlocking Value for Customers: Enabling New Services, Better Incentives, Fairer Rewards – ENA-CSIRO Summary Report – August 2016* ([Attachment B](#))
- *Network Pricing and Incentives Reform - Report by Energeia for ENA – August 2016* ([Attachment B.1](#))
- *Unlocking Value: Microgrids And Stand Alone Systems: Roles and Incentives for Microgrids and Stand Alone Power Systems – ENA-CSIRO Summary Report - October 2016* ([Attachment C](#))
- *Roles and Incentives for Microgrids and Stand Alone Power Systems - Report by Energeia for ENA – October 2016* ([Attachment C.1](#))

We will be discussing the issues raised in these reports further in our pending submission to the inquiry, and look forward to further opportunities to engage with the Committee.

Energy Networks Australia www.energynetworks.com.au

Yours sincerely,

John Bradley
Chief Executive Officer



Current NEM Interconnectors		
Terranora interconnector (between Terranora in NSW and Mudgeeraba in Qld)		
From	To	Nominal capacity
NSW	Qld	107 MW
Qld	NSW	210 MW
Queensland to NSW Interconnector (between Dumaresq in NSW and Bulli Creek in Qld)		
NSW	Qld	300-600 MW
Qld	NSW	1078 MW
Victoria to NSW (between Murray and Upper Tumut, Murray and Lower Tumut, Jindera and Wodonga and Buronga and Red Cliffs and a line at Guthega)		
Victoria	NSW	700-1600 MW
NSW	Victoria	400-1350 MW
Basslink (between George Town in Tasmania and Loy Yang in Victoria)		
Tasmania	Victoria	594 MW
Victoria	Tasmania	478 MW
Heywood Interconnector (between the Heywood substation in Victoria and the South East substation in South Australia)		
Victoria	South Australia	600 MW*
South Australia	Victoria	500 MW*
Murraylink interconnector (between Red Cliffs in Victoria and Monash in South Australia)		
Victoria	South Australia	220 MW
South Australia	Victoria	200 MW

Source: AEMO, *Interconnector Capabilities for the National Electricity Market* (September 2015) available at: <http://www.aemo.com.au/-/media/Files/PDF/Interconnector-Capabilities-v2.pdf>

*The Heywood interconnector has a maximum nominal capacity of 650 MW to import and export electricity between South Australia and Victoria.

In recent times, the tested maximum limits from Victoria to South Australia is 600 MW and 500 MW from South Australia to Victoria. An inter-network testing working group convened by AEMO with representatives including ElectraNet, AEMO and other Transmission Network Service Providers has examined these transfer

limits. Given the System Black event of 28 September 2016 and a number of subsequent power outages in South Australia, it is likely that the current capacity limits provided in the table above will apply for the next six months for on-going observation and monitoring (from 27 March 2017).

